

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1, 2, 4-7, 9, 17, 19-21, 23-25, 27, 35, 37-39, 41, and 43-51 are presented for examination with Claims 7-20 and 25-38 withdrawn from consideration. Claims 1, 6, 7, 9, 17, 19, 24, 27, and 37 are amended, Claims 3, 8, 10-16, 18, 22, 26, 28-34, 36, 40, and 42 are canceled without prejudice, and Claims 45-51 are added by the present amendment.

In the outstanding Office Action, Claims 1, 4-6, 21-24, 39-41, and 43-44 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nagata et al. (U.S. Patent No. 6,316,814, herein "Nagata") in view of Applicants' admitted art (AAA).

Applicants thank the Examiner for the courtesy of an interview extended to Applicants' representative on April 7, 2006. During the interview, the differences between the claims and the applied art were discussed. Further, clarifying claim amendments were also discussed. No agreement was reached, pending the Examiner's detailed consideration of the claim amendments upon formal submission. New claim amendments and arguments are presented below in addition to the arguments discussed during the interview.

During the interview Applicants indicated that Nagata does not teach or suggest a connecting plate as claimed and AAA does not teach or suggest that the connecting plate is in direct contact with an upper surface of a main electrode. The Examiner indicated that although the figures of AAA do not show the connecting plate in direct contact with the upper surface of the main electrode, AAA discloses at page 3, lines 9-10 that feature. Although Applicants with that interpretation of AAA, the claims have been amended as discussed next.

In response to the rejection of Claims 1, 4-6, 21-24, 39-41, and 43-44 under 35 U.S.C. § 103(a) as unpatentable over Nagata in view of AAA, independent Claims 1, 6, and 24 have

been amended to recite a second insulating film formed on a surface of an uppermost layer of a gate wiring and a connecting plate connected to a lead frame. The claim amendments find support, for example, in Figures 1 and 8 and their corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to a semiconductor device that includes, *inter alia*, a gate wiring formed on a semiconductor layer via a first insulating film and a second insulating film formed on a surface of the uppermost layer of the gate wiring. A connecting plate is directly connected to upper surfaces of main electrodes. The connecting plate is connected to a lead frame. Independent Claims 6 and 24 have been amended similar to Claim 1. In a non-limiting example, Figure 8 shows the lead frame 802, the gate wiring 805, and the connecting plate 803, and Figure 9 shows the second insulating film 1009.

Turning to the applied art, Nagata shows in Figure 1A a solid imaging device having a photoconversion region 14 and a plurality of wiring layers 15A, asserted by the outstanding Office Action to correspond to the claimed main electrode. However, Nagata does not teach or suggest that a connecting plate connected to a lead frame is directly connected onto the wiring layer 15. Even more, assuming *arguendo* that there is a motivation to add and connect the connecting plate onto the wiring layer 15 in Nagata, that connection is not possible because of the photoelectric conversion structure of the CMOS sensor of Nagata.

Further, the outstanding Office Action states that Nagata “do not teach a connecting plate which is directly connected onto the upper surfaces of the main electrodes.”<sup>1</sup> The outstanding Office Action relies on AAA for showing in Figure 21 a connecting plate 2109 that is directly connected to an upper surface of the main electrode 2105. However, irrespective of the suggestion of AAA, the device of Nagata cannot be modified as desired by the outstanding Office Action for the reasons already discussed above.

---

<sup>1</sup> Outstanding Office Action, page 3, lines 1-2.

In addition, the independent claims have been amended to recite a second insulating film which is formed on the surface of the uppermost layer of the gate wiring. However, neither Nagata nor AAA shows the claimed second insulating film.

Accordingly, it is respectfully submitted that independent Claims 1, 6 and 24 and each of the claims depending therefrom patentably distinguish over Nagata and AAA, either alone or in combination.

New Claims 45-51 have been added to set forth the invention in a varying scope and Applicants submit the new claims are supported by the originally filed specification. New Claims 45-51 depend from independent Claims 1, 6, and 24, which are believed to be allowable as noted above. Accordingly, it is respectfully submitted that new Claims 45-51 are allowable for similar reasons as discussed above.

Applicants respectfully request, if independent Claims 1, 6, and 24 are found allowable, to rejoin the dependent claims of independent Claims 1, 6, and 24 which are now withdrawn from consideration.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)

---

Eckhard H. Kuesters  
Attorney of Record  
Registration No. 28,870  
Remus F. Fetea, Ph.D.  
Limited Recognition No. L0037

I:\ATTY\RFF\23S\239801\239801US-AF-MAY9.DOC